RECOMBINANT CELLS THAT HIGHLY EXPRESS
CHROMOSOMALLY-INTEGRATED HETEROLOGOUS GENES

ABSTRACT OF THE DISCLOSURE

Recombinant host cells are obtained that comprise (A) a heterologous, polypeptide-encoding polynucleotide segment, stably integrated into a chromosome, which is under transcriptional control of an endogenous promoter and (B) a mutation that effects increased expression of the heterologous segment, resulting in enhanced production by the host cells of each polypeptide encoded by that segment, relative to production of each polypeptide by the host cells in the absence of the mutation. The increased expression thus achieved is retained in the absence of conditions that select for cells displaying such increased expression. When the integrated segment comprises, for example, ethanol-production genes from an efficient ethanol producer like *Zymomonas mobilis*, recombinant *Escherichia coli* and other enteric bacterial cells within the present invention are capable of converting a wide range of biomass-derived sugars efficiently to ethanol.